



United States Department of the Interior

GEOLOGICAL SURVEY
P.O. Box 5917
San Juan PR
00906

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#84017

CRUISE REPORT

PUERTO RICO MARINE GEOLOGY PROJECT

CRUISE REPORT-84-4

DATES: 26 September-15 October 1984

VESSEL: R/V JEAN A

PARENT PROJECT: Caribbean Project-03556

FUNDING AGENCY: U.S. Geological Survey and Direccion de Minería

FUNDING AMOUNT: Lease of Jean A \$32,500

AREA OF OPERATIONS: Samana Bay and Manzanillo-Monte Cristi area,
Dominican Republic.

CRUISE START: September 26 in San Juan, PR Ends October 15,
San Juan.

PORTS OF ENTRY: Samana, Puerto Plata, Manzanillo, Monte Cristi
(anchor)

CHIEF SCIENTIST: N. Terance Edgar and Rafael W. Rodriguez

CRUISE DATA CURATOR: USGS Office in San Juan, PR

SCIENTIFIC PARTY: Terry Edgar, Rafael W. Rodriguez, Gregory Miller
Juan Trias, Jose Muniz, Nelson Espinell, Ramon
Alonso, Carlos Geonaga, Gaspar Perez, O. Vazquez
E. Hernandez, G. Nakasu, A. Melo, F. Rivera
Luis H. Mendoza

SHIPS CAPTAIN:

PURPOSE OF CRUISE: Identify heavy mineral deposits on the insular
shelf of the Dominican Republic

NAVIGATION TECHNIQUES: Radar

SCIENTIFIC EQUIPMENT:

I. Seismic

- a) Uniboom
- b) 15 inch water gun
- c) 40 inch air gun
- d) 80 inch water gun

} KM?

II. Seismic

- a) Shipec
- b) Piston Corer
- c) Vibra corer

TABULATED INFORMATION:

- a) Number of days at sea: 19
- b) Number of stations occupied:
 - 1) Shipec (surface Sedimentation sampler): 40
 - 2) Beach Samples : 14
 - 3) Piston Cores : 12
 - 4) Vibra Cores : 4

COMMENTS:

This was the second cruise to the Dominican Republic as part of the five-year agreement between the USGS and DGM. We returned to Samana Bay with seismic equipment of greater penetration in order to see basement. We didn't. The thickness of sediment here appears to be similar to the Cibao Valley (within the same structural trend on-shore) where cores have penetrated more than 7 Km of sediment.

In the Manzanillo-Monte Cristi area we concentrated our studies on a spit where heavy minerals (particularly titanium) have been concentrated. We evaluated the extent of this deposit offshore.

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